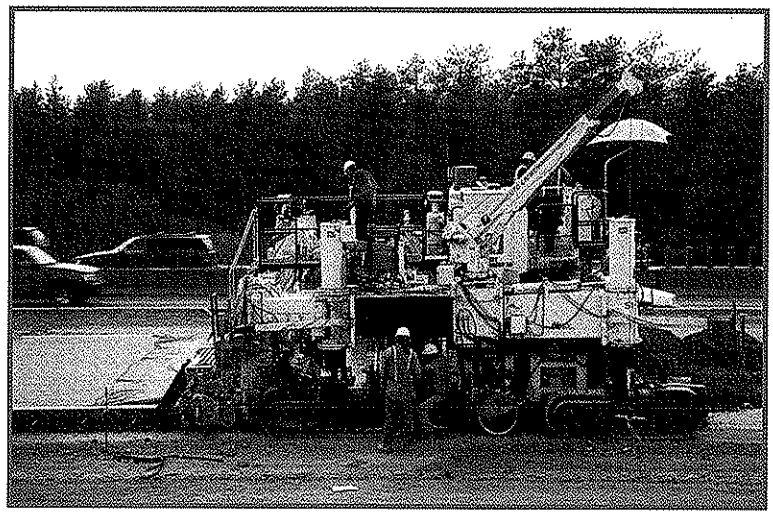
GUNTERT & ZIMMERMAN

Compact DBI

G&Z's patented Compact Dowel Bar Inserter (CDBI) is rear mounted off the back of a four-track Slipform Paver. The CDBI permits accurate insertion of dowel bars in the plastic concrete behind the Paver's conforming pan at the location of transverse contraction joints. The CDBI eliminates the need for dowel baskets and the crew required to install them. It **also** eliminates the need for sidefeeder(s) to deliver concrete in front of the Slipform Paver because dowel baskets are not needed.



The G&Z Compact Dowel Bar Inserter and How it Operates:

The roller supported Compact Dowel Bar Inserter (CDBI) has a patented free floating confining pan that slides on the fresh concrete surface. The CDBI is towed behind the conforming pan of the Slipform Paver by hydraulic cylinders when in a retracted position. The CDBI pan and trailing sideforms confine the disturbance to the concrete slab when the dowels are being vibrated and inserted into the plastic concrete to their intended depth and spacing. This insures good concrete consolidation around the bars.

Once the CDBI arrives at the intended transverse joint location, the automatic insertion cycle can be initiated manually, or automatically, by means of a distance-measuring wheel. During the insertion cycle, the CDBI remains stationary over the center of the intended transverse contraction joint location while the Paver continues to move forward. This process eliminates the need to stop the Paver for dowel bar insertion.

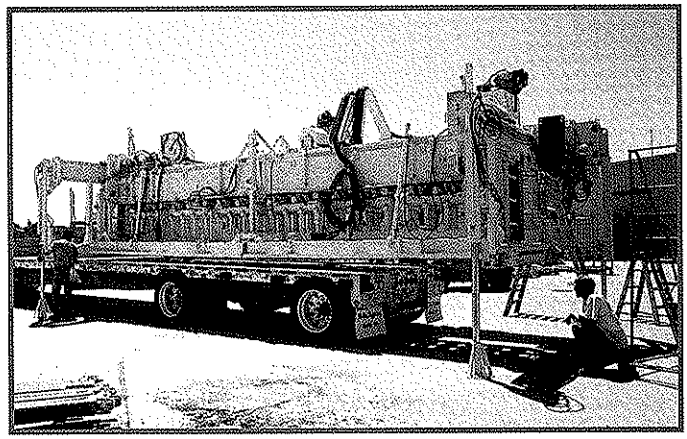
Once the inserter forks (four vibrating forks per bar) are retracted under vibration from the concrete, the CDBI with pan retracts hydraulically back behind the conforming pan of the Paver. The patented dowel distributing system then delivers the dowels to their holding positions across the width of the CDBI pan, ready for the next insertion cycle.

An Oscillating Correcting Beam (OCB) refinishes the concrete slab surface where the dowels have been inserted. Generally a Trailing Finishing Pan (TFP) is used behind the OCB as well.

CDBI Features:

- **Can be mounted on standard 4-Track Slipform Paver without bolster extensions and minimal paver modification**
- **No additional power unit is required**
- **Standard 4-Track Slipform Paver can back into or walk away from CDBI module**
- **Less than one-day unloading/setup time**
- **Self-loading CDBI module transports in one load under 12' (3.0m)**
- **Allows narrow track-line profile**

The CDBI has just gone through an insertion cycle. The "boil-up" where the bars were inserted into the plastic concrete is shown emerging from the CDBI confining pan.



The CDBI's patented modular design allows the entire CDBI, OCB and their supporting structure, as well as the Finishing Pan and Trailing Sideforms, to be transported in one piece at legal widths. The module can be self-loaded and unloaded off the transport truck by means of four hydraulic cylinders.

Printed in U.S.A. 2003 G&Z Order #106450.

GUNTERT & ZIMMERMAN

222 East Fourth Street, Ripon, California 95366 U.S.A.
Telephone: (209) 599-6131 Fax: (209) 599-2021
E-mail: gz@guntert.com Web Site: www.guntert.com